

reference guide 1981

CONCRETE
CONSTRUCTION

Annual index of articles: 1980

See page 912 for 21-year index

ADHESIVES

Divorces and Ruptured Relations Between Epoxy and Concrete: Some clues are offered to cases of incompatibility 4 pp; 80:735

ADMIXTURES

What Is Mt. St. Helens Doing to Concrete?: Some cements and aggregates in the Northwest have been modified but are still useful 2 pp; 80:813

AGGREGATES

Electrically Conductive Concrete: New carbonaceous aggregate, developed in the United Kingdom, may be the answer to designing conductive concrete mixes 3 pp; 80:411

ARCHITECTURAL CONCRETE

Concrete: Old Earth for New Designs: A broad variety of economical and industrialized methods for designing concrete structures permits a new freedom in approaching the design 3 pp; 80:135

CEMENT

Cement Is Turning to Oil: A shortage of cement can have a great impact on the lives of people, and great rewards for investors 3 pp; 80:347

COATINGS

Fusion-bonded Epoxy-coated Rebars: Their use is considered by many engineers to be among the most effective methods for combating rebar corrosion 4 pp; 80:587

CUTTING AND GRINDING

Christian Brothers Cuts It—With a Saw: Remodeling of 92-year-old winery presented a challenge 1 p; 80:246

DETERIORATION OF CONCRETE

D-cracking and Aggregate Size: The larger particles cause the distress—but aggregate sources should be evaluated individually 3 pp; 80:593

DRIVEWAYS, PATIOS AND WALKS

Slotted Drain Solves Sidewalk Problem: Sidewalk with good drainage and a curb boost both morale and business 1 p; 80:100

Project: Stamp out Scaling: The assumption is shaken that concrete exposed to deicers and severe winters will inevitably scale 4 pp; 80:139

EARTHQUAKE PERFORMANCE

Earthquake-resistant Connection Uses Steel Fibrous Concrete: Benefits include easier concrete placement, lower cost and less bond deterioration within connection 2 pp; 80:529

EARTH-SHELTERED CONSTRUCTION

Earth Shelters Are Here to Stay: For homes, schools, office or commercial buildings 4 pp; 80:647

Site Considerations for Earth-sheltered Structures: Site selection and planning can be one of the most important aspects of the entire design process 4 pp; 80:653

Concrete Work for Earth-sheltered Buildings: Special needs and some advice you may not get from the promotional literature 5 pp; 80:659

Choice and Installation of Insulation: For the insulation to protect the structure, protect the insulation 2 pp; 80:665

Waterproofing Materials for the Earth-shelter Contractor: Before making a choice of material, determine if the structure is cast-in-place or precast concrete, the nature of the soil, water conditions, and who will be applying the waterproofing 3 pp; 80:669

Construction Recommendations for Moisture Control: Suggestions that can stop moisture control problems before they begin 3 pp; 80:675

A Winner Features Earth, Grass, Landscaping . . . and Concrete: The handsome new headquarters building of Central Pre-Mix Concrete Company in Spokane receives a national energy conservation award 2 pp; 80:678

A Modular Earth-sheltered System with Domed Roofs: Homes are designed to be beautiful both inside and outside 2 pp; 80:684

An Earth-integrated Housing Concept for Difficult-to-build Sites: The earth itself is sculpted to form individual building sites 2 pp; 80:688

EDUCATIONAL MATERIALS AND PROGRAMS

World of Concrete Solidifies Position As Major Construction Trade Show: Both attendance and amount of exhibit space soar 1 p; 80:417

A Quick Way to Square Footings and Foundations: Frates' Guide to Squaring Footings and Foundations can save time for builders 1 p; 80:816

ENERGY CONSERVATION

An Energy-efficient Precast Wall System: Patented design includes use of exterior insulation 6 pp; 80:458

Insulated Concrete Wells Built Without Forms: Simple insulating core with internal trusses provides stability 3 pp; 80:467

A Simple, Efficient Insulation System for Poured Concrete Walls: New type of insulation panel system provides a practical, cost-cutting product for an expanding market 1 p; 80:482

Leave-in-place Forms for Wall Insulation: System incorporates lightweight insulating panels of expanded polystyrene 2 pp; 80:488

FAILURES

Roofs: Why Are So Many on the Ground?: During the heavy snows of 1979 in Chicago, there were no failed concrete roofs reported 2 pp; 80:133

FINISHING HARDENED CONCRETE

Three Steps to Correct Surface Defects: Smoothing, patching, rubbing needed to complete the job 3 pp; 80:215

FLOORS

What They're Asking About Concrete Floor Construction: Questions from a World of Concrete seminar 8 pp; 80:232

FORMING

Systematic Construction of Buildings by Room Units: Use of tunnel forms in combination with electric heat curing allows casting, curing and stripping of walls and floors in a 24-hour cycle 5 pp; 80:599

FORMS AND FORMING MATERIALS

Fabric Forms for Erosion Control and Pile Jacketing: Some innovative uses of fabric forms where soil meets water and for repair of existing coastal structures 3 pp; 80:395

reference guide 1981

CONCRETE
CONSTRUCTION

Annual index of articles: 1980

See page 912 for 21-year index

ADHESIVES

Divorces and Ruptured Relations Between Epoxy and Concrete: Some clues are offered to cases of incompatibility 4 pp; 80:735

ADMIXTURES

What Is Mt. St. Helens Doing to Concrete?: Some cements and aggregates in the Northwest have been modified but are still useful 2 pp; 80:813

AGGREGATES

Electrically Conductive Concrete: New carbonaceous aggregate, developed in the United Kingdom, may be the answer to designing conductive concrete mixes 3 pp; 80:411

ARCHITECTURAL CONCRETE

Concrete: Old Earth for New Designs: A broad variety of economical and industrialized methods for designing concrete structures permits a new freedom in approaching the design 3 pp; 80:135

CEMENT

Cement Is Turning to Oil: A shortage of cement can have a great impact on the lives of people, and great rewards for investors 3 pp; 80:347

COATINGS

Fusion-bonded Epoxy-coated Rebars: Their use is considered by many engineers to be among the most effective methods for combating rebar corrosion 4 pp; 80:587

CUTTING AND GRINDING

Christian Brothers Cuts It—With a Saw: Remodeling of 92-year-old winery presented a challenge 1 p; 80:246

DETERIORATION OF CONCRETE

D-cracking and Aggregate Size: The larger particles cause the distress—but aggregate sources should be evaluated individually 3 pp; 80:593

DRIVEWAYS, PATIOS AND WALKS

Slotted Drain Solves Sidewalk Problem: Sidewalk with good drainage and a curb boost both morale and business 1 p; 80:100

Project: Stamp out Scaling: The assumption is shaken that concrete exposed to deicers and severe winters will inevitably scale 4 pp; 80:139

EARTHQUAKE PERFORMANCE

Earthquake-resistant Connection Uses Steel Fibrous Concrete: Benefits include easier concrete placement, lower cost and less bond deterioration within connection 2 pp; 80:529

EARTH-SHELTERED CONSTRUCTION

Earth Shelters Are Here to Stay: For homes, schools, office or commercial buildings 4 pp; 80:657

Site Considerations for Earth-sheltered Structures: Site selection and planning can be one of the most important aspects of the entire design process 4 pp; 80:653

Concrete Work for Earth-sheltered Buildings: Special needs and some advice you may not get from the promotional literature 5 pp; 80:659

Choice and Installation of Insulation: For the insulation to protect the structure, protect the insulation 2 pp; 80:665

Waterproofing Materials for the Earth-shelter Contractor: Before making a choice of material, determine if the structure is cast-in-place or precast concrete, the nature of the soil, water conditions, and who will be applying the waterproofing 3 pp; 80:669

Construction Recommendations for Moisture Control: Suggestions that can stop moisture control problems before they begin 3 pp; 80:675

A Winner Features Earth, Grass, Landscaping . . . and Concrete: The handsome new headquarters building of Central Pre-Mix Concrete Company in Spokane receives a national energy conservation award 2 pp; 80:678

A Modular Earth-sheltered System with Domed Roofs: Homes are designed to be beautiful both inside and outside 2 pp; 80:684

An Earth-integrated Housing Concept for Difficult-to-build Sites: The earth itself is sculpted to form individual building sites 2 pp; 80:688

EDUCATIONAL MATERIALS AND PROGRAMS

World of Concrete Solidifies Position As Major Construction Trade Show: Both attendance and amount of exhibit space soar 1 p; 80:417

A Quick Way to Square Footings and Foundations: Frates' Guide to Squaring Footings and Foundations can save time for builders 1 p; 80:816

ENERGY CONSERVATION

An Energy-efficient Precast Wall System: Patented design includes use of exterior insulation 6 pp; 80:458

Insulated Concrete Wells Built Without Forms: Simple insulating core with internal trusses provides stability 3 pp; 80:467

A Simple, Efficient Insulation System for Poured Concrete Walls: New type of insulation panel system provides a practical, cost-cutting product for an expanding market 1 p; 80:482

Leave-in-place Forms for Wall Insulation: System incorporates lightweight insulating panels of expanded polystyrene 2 pp; 80:488

FAILURES

Roofs: Why Are So Many on the Ground?: During the heavy snows of 1979 in Chicago, there were no failed concrete roofs reported 2 pp; 80:133

FINISHING HARDENED CONCRETE

Three Steps to Correct Surface Defects: Smoothing, patching, rubbing needed to complete the job 3 pp; 80:215

FLOORS

What They're Asking About Concrete Floor Construction: Questions from a World of Concrete seminar 8 pp; 80:232

FORMING

Systematic Construction of Buildings by Room Units: Use of tunnel forms in combination with electric heat curing allows casting, curing and stripping of walls and floors in a 24-hour cycle 5 pp; 80:599

FORMS AND FORMING MATERIALS

Fabric Forms for Erosion Control and Pile Jacketing: Some innovative uses of fabric forms where soil meets water and for repair of existing coastal structures 3 pp; 80:395

Fabric Forms Conform to Any Shape: Synthetic textile forms are used in or out of water, above and below grade, and left in place 5 pp; 80:401

New Device Helps Cut Setting Time of Job-built Forms: Snap-tie accessory reportedly reduces form-tie installation time by 25 percent 1 p; 80:780

HISTORY

Huge Pour Made in Record Time: 3987 cubic yards for mat foundation placed in 11 hours 1 p; 80:175

Concrete Pumped to New U.S. Record Height: 729-foot level reached on 50-story high-rise 1 p; 80:533

JOINTS

Control Joints Can Eliminate Leaking* Cracks in Basement Walls: Backing up each joint midway through the wall is a plastic waterstop 2 pp; 80:474

New Expansion Joint for Plastered Walls: Installation requires no more than wiring to metal lath or nailing to wood studs 2 pp; 80:484.

MANAGEMENT

Concrete Is My Business: I'm proud of it 1 p; 80:53

Legal Bench Marks: The Battle of the Forms 1 p; 80:152

Rental of Safety Barrier—A New Service in Growing Demand 1 p; 80:244

The Death of the Salesman: The meaning of the word "competitive" has been twisted out of shape 3 pp; 80:352

Legal Bench Marks: Cost-plus contracts 1 p; 80:357

1980s Economic Outlook for Construction: An Arthur D. Little analysis 1 p; 80:422

Legal Bench Marks: Misinterpretation of contracts 1 p; 80:436

Legal Bench Marks: Compensable Time 1 p; 80:492

The Creative Art of Selling: Relax. You are engaged in something worthwhile, not a war 2 pp; 80:550

Legal Bench Marks: Stopping Work 2 pp; 80:572

Comparing Apples with Apples: Guest Editorial 2 pp; 80:612

Legal Bench Marks: Buy-sell agreements 1 p; 80:682

Open Season on Cast-in-place Concrete?: Concrete as a material has not been overcome by some deadly affliction 2 pp; 80:740

Guidelines on Allowances: Number 21 of a series of guidelines published by Construction Industry Affairs Committee of Chicago 1 pp; 80:818

Legal Bench Marks: Comprehensive liability insurance: It may not help where you need it 1 p; 80:840

Concrete Construction Forecast 1981-1985: 2 pp; 80:953

MARKETING

The Concrete Advantage: Editorial 1 p; 80:7

Record-setting Concrete Projects: Achievements that require herculean efforts today become the commonplace of tomorrow 12 pp; 80:9, 16, 18, 22, 28, 31, 33, 39, 44, 47, 129, 131

The Many Applications of Concrete: From cabooses to nudes, concrete can be pumped, poured, cast, sprayed, troweled, formed or carved 3 pp; 80:11

The Many Shapes of Concrete: However high you want to go, whatever shapes you want to create, concrete is the logical choice 4 pp; 80:15

The Many Faces of Concrete: By its very nature, concrete responds readily to the creative impulse 4 pp; 80:19

The Many Methods of Concrete Construction: From slurry walls to slipforming, from shotcreting to tunnel forming, concrete offers the builder an array of options 6 pp; 80:23

Concrete: An Unlimited Choice of Properties: Heavy or light, high- or low-strength, insulating or heat-transmitting, permeable or impermeable, hard or soft—it's the customer's choice 3 pp; 80:31

The Durability of Concrete: Rightly made it will last a thousand years 5 pp; 80:35

The Repairability of Concrete: Most building materials are repaired by replacing components; concrete can be "remanufactured" on the site, and often made better than new 4 pp; 80:41

Concrete, the Energy Saving Material: As more is learned about energy conservation in buildings, one fact stands out: Concrete and energy conservation go hand in hand 3 pp; 80:45

The Concrete Industry: On the Grow: With concrete's many advantages the industry is growing steadily in size and sophistication 3 pp; 80:48

METRICATION

Metric Tables for Concrete Construction 4 pp; 80:991

MIX DESIGN

How To Produce High-strength Concrete: Some basic principles are noted that could aid in the commercialization of high strength concrete 5 pp; 80:222

Excess Water Can Be a Costly Ingredient in Concrete: Properly designed, a mix with a slump of 3 to 4 inches can almost always be handled properly by finishers 3 pp; 80:339

PATTERN STAMPING

A New Role for the Wheel: Patterning wheel is propelled by workmen walking inside it 1 p; 80:197

PRECASTING

The Contractor as a Precaster: A general contractor tells what he has learned through 10 years of operating his own precasting plant 4 pp; 80:791

A Modular Precast Concrete Building System: For the contractor—a package of construction methods, marketing aids and management services 4 pp; 80:804

Reserved Territories Available for Precast Fireplaces: Fireplaces are reportedly a major advancement in both energy conservation and construction 1 p; 80:839

PRESTRESSING

Prestressing: The Technique That Makes Concrete Fully Competitive: It should remain one of the strongest concrete systems in the marketplace 4 pp; 80:125

PUMPING

Preventive Maintenance for Concrete Placement Booms: All functions of boom operation should be checked at regular intervals to ensure reliable, safe pumping operations 3 pp; 80:391

RECREATIONAL USES

Boulder Bicycle Paths—Booming Slipform Business: Slipforming such paths is logical from the standpoint of speed, quality and economy 1 p; 80:431

A Monument to a Cherished Tradition: Creative use of concrete walls played a prominent role in constructing the Kentucky Horse Park 2 pp; 80:470

RECYCLING

Concrete Recycling Is Good Business: A six-year-old Detroit recycling operation is doing very well 1 p; 80:418

Quarrying Old Pavements to Build New Ones: Interest in recycled concrete is growing as a means of simultaneously disposing of old pavements, saving energy and producing high-grade aggregates 5 pp; 80:725

FHWA Funds Concrete Recycling Projects: The Federal Highway Association's Demonstration Project Number 47 is aimed at setting up one recycling demonstration per state to encourage highway agencies to construct and evaluate recycled portland cement concrete pavement 1 p; 80:730

A Growing Plant Operation in Recycled Concrete: Successful Long Island recycling plant notes much growth in the demand for recycled concrete 1 p; 80:733

REINFORCEMENT

Half Tunnels and High Yield Strength Fabric: Mating half-tunnel forming with high yield strength, structural welded-wire fabric shortens construction time and saves money 5 pp; 80:535

REPAIRING

Epoxy Patches Divert Leaks: Joints of a stadium are sealed with epoxy mortar, polyethylene rods and polyurethane sealant 1 p; 80:80

When Wood Decks Deteriorate, Replace with Concrete:
Ingenious method used to replace elevated wood walkways
2 pp; 80:343

RESIDENTIAL

Wire-Foam-Cement Building Panels: Insulated structural panel sandwich is being used on the West Coast
2 pp; 80:148

SHOTCRETING

New Developments In Steel Fibrous Shotcrete: Its attractiveness is in improved strength, ductility and toughness and the elimination of wire mesh 4 pp; 80:189

SITE-PRECASTING

Site-precasting: Often thought of as a factory operation, precasting of building components on the site offers a challenging market for the contractor who has developed the staff and gained the experience to perform this work himself 4 pp; 80:331

Concreting in Saudi Arabia: Use of modern precasting techniques and ready mixed concrete are on the rise
5 pp; 80:797

SPECIFICATIONS

A Guide to Specifying Formwork for Concrete: Specifications will have much to do with overall economy of any concrete structure and quality of finished work
8 pp; 80:199

SUMMER CONCRETING

Keeping It Cool with Liquid Nitrogen: Mixing liquid nitrogen at a temperature of -320 degrees F with water forms an ice/water slush that successfully cools concrete mixes in very hot weather 2 pp; 80:606

TESTING

Monitoring Structural Movements with New Telltale: Instrument detects and measures crack or joint movement of even 1 millimeter 1 p; 80:187

List of ADVERTISERS IN THIS ISSUE appears on page 997

Fast Checks of Concrete Strength on World's Busiest Retail Street: A hand-held, spring-loaded rebound hammer was effective in checking compressive strength 1 p; 80:421

TIILT-UP

Stop the Presses?: No—at least not when additions are made to a printing business that operates in a tilt-up building
2 pp; 80:478

Post-tensioned Multistory Tilt-up: Post-tensioning finds a new use in tilting up tall, intricate panels without conventional strongbacks 2 pp; 80:527

TOLERANCES

Concrete Construction Tolerances: Take a good look at the rules we may all have to build by—a proposed ACI Standard 6 pp; 80:743

TOOLS

Concrete Machine Tool Structures: Interest increases in use of concrete as an alternative to mild steel or cast iron for the structural components of machine tools 1 p; 80:221

Homemade Grooving Tool Solves Cattle Slipping Problem: Tool scores concrete in a diamond pattern 1 p; 80:842

TROUBLESHOOTING

Yesterday's Problems—Still with Us Today? A selection of problems answered in Problem Clinic in recent years
5 pp; 80:956

WINTER CONCRETING

Pepper Construction Didn't Wait for Spring: A movable, heated, 30- by 200-foot enclosure was transported by crane to seven different locations so work could continue during the winter of 1979 1 p; 80:250

INTRODUCING... The Can-Do Concrete Production System

Install a Can-Do Concrete Production System. Designed with 25 years experience in concrete production machinery. Versatile and flexible to maximize your profit potential. Call or write us today for more information.

Ribbon-Type Mixer With Hydraulic Charging Hopper makes up to one cubic yard in minutes.

Bins For Aggregate And Sand. Cement Silo (not shown) To Make Complete System. Rails and weighing system are extended to accommodate silo.

Hydraulic, Variable Position Discharge Chute facilitates controlled discharge to transporter or pour bucket.

Transporter, 1/2, 1 and 1 1/2 cu. yd. capacities; towable by pick-up or normal passenger car; tandem axles; surge brakes; screw-jack tongue; splash guard at front.



Can-Do
Concrete Systems
P.O. Box 2038 • Jonesboro, AR 72401
(501) 935-6910

circle 119 on reader service card

ROOT Hand-Operated GROUT PUMP

Hand-Operated Grout Pumps Are Now Available for Placing Small Quantities Of High Viscosity Grout Into Those Impossible Places!



The ROOT Hand Operated Grout Pump is designed to pump high-viscosity slurries impregnated with cement, rock-dust, sand, metallic particles, thixotropic agents, or any material that can be made to flow. It is specially designed for placing grout under machine and engine bed plates. Ideal for grouting anchor bolts in rock, injecting waterproof materials, grouting under concrete floor slabs and walls and sills. Serves any area where grouting is employed. The self-priming pump moves 1/2 gallon of pure water per full stroke, has maximum suction lift of 20 feet and discharge head of 10 feet. Depending on viscosity of grout mixture, the pump can lift grout several feet and discharge it at an approximate three foot head. The ROOT GROUTER is rugged enough for any grouting operation, yet light and compact enough to fit into the trunk of an automobile.

GUNITE & GROUTING DIVISION
ROOT EQUIPMENT CORPORATION
50-51 49th St. Woodside NY 11377 (212) 784-2915

circle 161 on reader service card

